NFPA 498

Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives

2006 Edition

NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

--`,,```,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

IMPORTANT NOTICES AND DISCLAIMERS CONCERNING NFPA DOCUMENTS

NOTICE AND DISCLAIMER OF LIABILITY CONCERNING THE USE OF NFPA DOCUMENTS

NFPA codes, standards, recommended practices, and guides, of which the document contained herein is one, are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together volunteers representing varied viewpoints and interests to achieve consensus on fire and other safety issues. While the NFPA administers the process and establishes rules to promote fairness in the development of consensus, it does not independently test, evaluate, or verify the accuracy of any information or the soundness of any judgments contained in its codes and standards.

The NFPA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from the publication, use of, or reliance on this document. The NFPA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the NFPA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the NFPA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The NFPA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the NFPA list, certify, test or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the certifier or maker of the statement.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

ADDITIONAL NOTICES AND DISCLAIMERS

Updating of NFPA Documents

Users of NFPA codes, standards, recommended practices, and guides should be aware that these documents may be superseded at any time by the issuance of new editions or may be amended from time to time through the issuance of Tentative Interim Amendments. An official NFPA document at any point in time consists of the current edition of the document together with any Tentative Interim Amendments and any Errata then in effect. In order to determine whether a given document is the current edition and whether it has been amended through the issuance of Tentative Interim Amendments or corrected through the issuance of Errata, consult appropriate NFPA publications such as the National Fire Codes® Subscription Service, visit the NFPA website at www.nfpa.org, or contact the NFPA at the address listed below.

Interpretations of NFPA Documents

A statement, written or oral, that is not processed in accordance with Section 6 of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its Committees and shall not be considered to be, nor be relied upon as, a Formal Interpretation.

Patents

The NFPA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of NFPA codes, standards, recommended practices, and guides, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on these documents. Users of these documents are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

NFPA adheres to applicable policies of the American National Standards Institute with respect to patents. For further information contact the NFPA at the address listed below.

Law and Regulations

Users of these documents should consult applicable federal, state, and local laws and regulations. NFPA does not, by the publication of its codes, standards, recommended practices, and guides, intend to urge action that is not in compliance with applicable laws, and these documents may not be construed as doing so.

Copyrights

This document is copyrighted by the NFPA. It is made available for a wide variety of both public and private uses. These include both use, by reference, in laws and regulations, and use in private self-regulation, standardization, and the promotion of safe practices and methods. By making this document available for use and adoption by public authorities and private users, the NFPA does not waive any rights in copyright to this document.

Use of NFPA documents for regulatory purposes should be accomplished through adoption by reference. The term "adoption by reference" means the citing of title, edition, and publishing information only. Any deletions, additions, and changes desired by the adopting authority should be noted separately in the adopting instrument. In order to assist NFPA in following the uses made of its documents, adopting authorities are requested to notify the NFPA (Attention: Secretary, Standards Council) in writing of such use. For technical assistance and questions concerning adoption of NFPA documents, contact NFPA at the address below.

For Further Information

All questions or other communications relating to NFPA codes, standards, recommended practices, and guides and all requests for information on NFPA procedures governing its codes and standards development process, including information on the procedures for requesting Formal Interpretations, for proposing Tentative Interim Amendments, and for proposing revisions to NFPA documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the Secretary, Standards Council, NFPA, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

For more information about NFPA, visit the NFPA website at www.nfpa.org.

--`,,```,,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

Copyright © 2005, National Fire Protection Association, All Rights Reserved

NFPA 498

Standard for

Safe Havens and Interchange Lots for Vehicles Transporting Explosives

2006 Edition

This edition of NFPA 498, *Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives*, was prepared by the Technical Committee on Explosives and acted on by NFPA at its June Association Technical Meeting held June 6–10, 2005, in Las Vegas, NV. It was issued by the Standards Council on July 29, 2005, with an effective date of August 18, 2005, and supersedes all previous editions.

This edition of NFPA 498 was approved as an American National Standard on August 18, 2005.

Origin and Development of NFPA 498

This standard was developed by the Technical Committee on Explosives to address the special requirements of motor vehicle terminals specifically designed to handle cargoes of explosive materials. It was tentatively adopted at the 1969 NFPA Annual Meeting and officially adopted at the 1970 NFPA Annual Meeting. Several amendments were adopted at the 1976 and 1982 NFPA Annual Meetings. In 1986, 1990, and 1992, the document was reconfirmed.

Formerly titled *Explosives Motor Vehicle Terminals,* the 1996 edition of NFPA 498 was a complete revision.

The 1996 edition more completely addressed the fire, theft, and explosion hazards that exist when explosive materials are present in parked vehicles in safe havens and in explosives interchange lots.

The 2001 edition of NFPA 498 incorporated various editorial amendments.

The 2006 edition includes a complete revision based on the *Manual of Style for NFPA Technical Committee Documents* and incorporates minor editorial changes to the standard.

--`,,```,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

Technical Committee on Explosives

Thomas P. Dowling, *Chair*
Harpers Ferry, WV [SE]

Ben Barrett, Hodgdon Powder Company, Inc., KS [M]
W. S. Chang, Explosives Bureau, NJ [RT]
John A. Conkling, Chestertown, MD [M]
Rep. American Pyrotechnics Association
C. James Dahn, Safety Consulting Engineers, Inc., IL [SE]
Paul W. Dickinson, Defense Logistics Agency, CO [E]
Frank H. Fenton, III, The Township of Northampton, PA [E]
Mark A. Fry, Mark A. Fry & Associates, Inc., NJ [SE]
J. Edmund Hay, Clairton, PA [SE]
Robert B. Hopler, Powderman Consulting, Inc., MD [SE]
Juri T. Kasemets, Natural Resources Canada, Canada [E]
Kenneth L. Kosanke, PyroLabs Incorporated, CO [SE]
David K. Nichols, TRW Vehicle Safety Systems Inc., AZ [M]
Roger N. Prescott, Austin Powder Company, OH [M]
Rep. International Society of Explosives Engineers
Lon D. Santis, Institute of Makers of Explosives, DC [U]
David S. Shatzer, U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives, DC [E]
Robert A. Van Duzer, SAAMI, PA [M]
Bert von Rosen, Canadian Explosives Research Laboratory, Canada [RT]

Alternates

Douglas H. Delsemme, Hodgdon Powder Company, Inc., KS [M]
(Alt. to B. Barrett)
Larry L. Fluer, Fluer, Incorporated, CA [M]
(Alt. to D. K. Nichols)
Eldon K. Hurley, Dyno Nobel Incorporated, NY [U]
(Alt. to L. D. Santis)
Michael S. Katich, Defense Logistics Agency, CO [E]
(Alt. to P. W. Dickinson)
Lawrence Weinman, Luna Tech/Schneier-Weinman Consultants, AL [SE]
(Alt. to K. L. Kosanke)

Nonvoting

Terence P. Smith, U.S. Department of Labor, DC

Guy R. Colonna, NFPA Staff Liaison

This list represents the membership at the time the Committee was balloted on the final text of this edition. Since that time, changes in the membership may have occurred. A key to classifications is found at the back of the document.

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for documents on the manufacture, transportation, storage and use of explosives and related materials. This Committee does not have responsibility for documents on consumer and display fireworks, model and high power rockets and motors, and pyrotechnic special effects.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Contents

Chapter 1 Administration **498**–4
1.1 Scope **498**–4
1.2 Purpose **498**–4
1.3 Application **498**–4

Chapter 2 Referenced Publications **498**–4
2.1 General **498**–4
2.2 NFPA Publications **498**–4
2.3 Other Publications **498**–4
2.4 References for Extracts in Mandatory Sections **498**–4

Chapter 3 Definitions **498**–4
3.1 General **498**–4
3.2 NFPA Official Definitions **498**–4
3.3 General Definitions **498**–5

Chapter 4 Safe Havens **498**–5
4.1 General **498**–5
4.2 Vehicle Parking **498**–5
4.3 Control of Ignition Sources **498**–6
4.4 Security Against Trespassers **498**–6
4.5 Employee Training at Safe Havens **498**–6
4.6 Notification of Authority Having Jurisdiction **498**–6

Chapter 5 Explosives Interchange Lots **498**–6
5.1 General **498**–6
5.2 Operations **498**–6

Annex A Explanatory Material **498**–7

Annex B Informational References **498**–7

Index **498**–8

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA 498

Standard for

Safe Havens and Interchange Lots for Vehicles Transporting Explosives

2006 Edition

IMPORTANT NOTE: This NFPA document is made available for use subject to important notices and legal disclaimers. These notices and disclaimers appear in all publications containing this document and may be found under the heading "Important Notices and Disclaimers Concerning NFPA Documents." They can also be obtained on request from NFPA or viewed at www.nfpa.org/disclaimers.

NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Annex A.

A reference in brackets [ ] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex B. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1* Scope.

1.1.1 This standard shall apply to safe havens that are used for the parking of vehicles transporting explosives and to explosives interchange lots that are safe areas where less-than-truckloads of explosives shall be permitted to be held for transfer from one vehicle to another for continuance in transportation.

1.1.2 All vehicles covered by this standard shall be required to be engaged in the transportation of explosives and shall carry shipping papers to show that the explosives being transported are properly described, classified, identified, packaged, and labeled in accordance with regulations of the U.S. Department of Transportation.

1.1.3 Additionally, all vehicles shall be required to be marked and placarded in accordance with regulations of the U.S. Department of Transportation.

1.2 Purpose. This standard shall provide reasonable requirements for the prevention of fires, theft, and explosion within explosives motor vehicle facilities.

1.3 Application.

1.3.1 This standard shall apply to the design and operating features of explosives motor vehicle facilities related to the prevention of fire, theft, and explosion.

1.3.2 This standard shall not apply to motor freight terminals for vehicles handling general freight.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 495, *Explosive Materials Code,* 2006 edition.

NFPA 601, *Standard for Security Services in Fire Loss Prevention,* 2005 edition.

2.3 Other Publications.

2.3.1 U.S. Government Publications. U.S. Government Printing Office, Washington, DC 20402.

RSPA-5800.6, *Emergency Response Guide (ERG).*

Title 49, Code of Federal Regulations, Parts 172.700–172.704.

2.3.2 Other Publication. *Merriam-Webster's Collegiate Dictionary,* 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 495, *Explosive Materials Code,* 2006 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary,* 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

--`,,```,,,,````-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

3.2.7 Standard. A document, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an appendix or annex, footnote, or fine-print note and are not to be considered a part of the requirements of a standard.

3.3 General Definitions.

3.3.1 Explosives Interchange Lot. A specially designated safe area of a motor vehicle terminal where less-than-truckload lots of explosives can be held for transfer from one vehicle to another for continuance in transportation.

3.3.2* Explosives Motor Vehicle Facility. A designated area where motor vehicles transporting explosives can be parked, pending further movement in transportation.

3.3.3 Motor Vehicle. Any self-propelled vehicle, truck, tractor, semitrailer, or truck-trailer combination used for the transportation of freight over public highways. [**495,** 2006]

3.3.4* Safe Haven. A secured area specifically designated and approved in writing by local, state, or federal governmental authorities for the parking of vehicles containing Class 1 materials (explosives).

3.3.5* Shipping Papers. A shipping order, bill of lading, manifest, or other shipping document serving a similar purpose and containing the information required by regulations of the U.S. Department of Transportation.

Chapter 4 Safe Havens

4.1 General.

4.1.1 All safe havens shall be located in a secured area that complies with the provisions of this chapter.

4.1.2 Safe havens shall not be located within 91.5 m (300 ft) of a bridge, tunnel, dwelling, building, or place where people work, congregate, or assemble, except for facilities and personnel related to the operation of the safe haven.

4.1.3 Weeds, underbrush, vegetation, or other combustible materials shall be cleared for a distance of 7.6 m (25 ft) from the safe haven.

4.1.4* The safe haven shall be protected from unauthorized persons or trespassers by use of warning signs, gates, and patrols specified in Section 4.4.

4.1.4.1 When vehicles carrying Class 1 materials (explosives) are parked in a safe haven, the entrance to the safe haven shall be marked with the following warning sign:

DANGER
NO SMOKING
NEVER FIGHT EXPLOSIVE FIRES
VEHICLES ON THIS SITE CONTAIN EXPLOSIVES
CALL _____

4.1.4.2 The sign shall be weatherproof with reflective printing, and the letters shall be at least 5 cm (2 in.) high.

4.1.5 Watch personnel assigned to patrol the safe haven shall be made familiar with the information in NFPA 601, *Standard for Security Services in Fire Loss Prevention.*

4.1.5.1 All watch personnel at the safe haven shall be made aware of the classification of explosives in each vehicle and its inherent dangers, and shall have been instructed in the measures and procedures to be followed to protect the public from these dangers.

4.1.5.2 Stand-by Vehicle.

4.1.5.2.1 A motor vehicle in good operating condition and capable of moving the explosives-laden trailers in the safe haven shall be kept at the safe haven at all times.

4.1.5.2.2 The watch or patrol personnel shall be familiar with the vehicle, trained in its use, and supplied with the necessary means and authority to use the motor vehicle to move any of the explosives-loaded vehicles in the safe haven where required.

4.1.5.2.3 The motor vehicle shall not be parked within 7.6 m (25 ft) of any vehicle containing explosives.

4.1.6 Fire Protection Equipment.

4.1.6.1 Fire protection equipment capable of handling incipient fires shall be provided at each safe haven.

4.1.6.2 Two or more portable fire extinguishers with a total fire extinguisher rating of at least 4-A:40-B:C shall be placed at accessible locations in the safe haven.

4.1.6.3 Where a dependable water supply source is readily accessible, water hoses shall be permitted to be used in addition to the required portable extinguishers.

4.2 Vehicle Parking.

4.2.1 Vehicle Inspection.

4.2.1.1 Before any vehicle is admitted to a safe haven, a thorough inspection shall be made of the vehicle.

4.2.1.2 As a minimum, the vehicle shall be checked for hot tires, hot wheel bearings, hot brakes, any accumulation of oil or grease, any defects in the electrical system, and any apparent physical damage to the vehicle that could cause or contribute to a fire.

4.2.1.3 Any defects shall be corrected before the vehicle is placed in the safe haven.

4.2.2 After a loaded trailer is positioned in the safe haven, the tractor shall be disconnected immediately and removed from the safe haven.

4.2.3 Spacing of not less than 1.5 m (5 ft) shall be maintained between trailers parked side by side or back to back.

4.2.4 Parking shall be maintained so as not to require the moving of one vehicle in order to move another vehicle.

4.2.5 Trailers in the safe haven shall be maintained in the same condition as is required for highway transportation, including placarding.

4.2.6 Where a self-propelled vehicle loaded with explosives is parked in a safe haven, the following requirements shall be met:

(1) Parked at least 7.6 m (25 ft) from any other vehicles containing explosives
(2) In operable condition
(3) Properly placarded
(4) In a position and condition where it can be moved easily in case of necessity or emergency

4.2.7 No explosives shall be transferred from one vehicle to another in a safe haven except in case of necessity or emergency.

--`,,```,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

4.2.8* No vehicle transporting other hazardous materials shall be parked in a safe haven unless the materials being transported are compatible with explosives.

4.3 Control of Ignition Sources.

4.3.1 Repairs.

4.3.1.1 Other than minor repairs, no repair work shall be performed on any vehicle parked in a safe haven.

4.3.1.2 Any repair work involving cutting or welding, operation of the vehicle engine, or the electrical wiring shall be performed only after the explosives have been unloaded from the vehicle and the vehicle to be repaired has been removed from the safe haven.

4.3.2 Smoking, matches, open flames, spark-producing devices, and firearms shall be prohibited inside and within 15.3 m (50 ft) of the safe haven unless otherwise permitted in 4.3.3.

4.3.3 Law enforcement and security personnel shall be permitted to carry firearms where specifically authorized by the authority having jurisdiction.

4.3.4 Electric service lines required to be in proximity to a safe haven shall be no closer than the length of the lines between the poles or towers supporting the lines, unless an effective means is provided to ensure that energized lines, on breaking, cannot come into contact with vehicles parked in the safe haven.

4.4 Security Against Trespassers.

4.4.1 When any vehicle transporting explosives is parked in a safe haven, at least one trained person, 21 years of age or older, shall be assigned to patrol the safe haven on a continuous and dedicated basis.

4.4.2 Safe havens located on explosives manufacturing facilities or at motor vehicle terminals shall be permitted to employ other means of acceptable security such as existing plant or terminal protection systems or electronic surveillance devices.

4.5 Employee Training at Safe Havens. The operator of the safe haven shall maintain an active safety training program in emergency response procedures for all employees working at the safe haven.

4.5.1 Written emergency instructions shall be posted and readily accessible to all employees.

4.5.2 Employees involved in the loading, shipping, or transportation of explosives shall receive hazardous material training as required by the U.S. Department of Transportation (49 CFR 172.700–172.704) and shall be familiar with the U.S. Department of Transportation *Emergency Response Guide (ERG)* (RSPA-5800.6).

4.6 Notification of Authority Having Jurisdiction.

4.6.1 The operator of the safe haven shall notify, in writing (with signed receipt), local fire department, law enforcement, and emergency response agencies of the establishment and approval of a safe haven, and advise of the type and maximum quantity of Class 1 materials authorized for the safe haven.

4.6.2 The operator of the safe haven shall maintain copies of the safe haven approval and emergency response notifications.

Chapter 5 Explosives Interchange Lots

5.1 General.

5.1.1* Temporary Holding Facility.

5.1.1.1 A temporary holding facility conforming to the construction requirements for Type 1 or Type 2 magazines as described in NFPA 495, *Explosive Materials Code*, shall be provided in the interchange lot.

5.1.1.2 If detonators or other initiators are to be temporarily held at the same time as other explosives, then two temporary holding facilities shall be required: one for detonators (initiators) and the second for the other explosives.

5.1.2 The facilities specified in 5.1.1 shall be located a minimum of 15.3 m (50 ft) from structures on the adjoining property or any facility that could create a fire hazard.

5.1.3 Where an area at the loading dock is designated for the temporary holding of explosives in a trailer (as provided in Section 5.2), it shall not be located within 15.3 m (50 ft) of a fire hazard such as an area where smoking is permitted, hot work is being done, or combustible or flammable materials are present.

5.2 Operations.

5.2.1 Explosives brought into the interchange lot to await shipment shall be immediately placed in the facility specified in 5.1.1 until such time as the explosives are loaded on a departing over-the-road motor vehicle.

5.2.2 Explosives delivered to the interchange lot by a connecting carrier shall be retained in the trailer at a designated section of the loading dock, or the trailer shall be parked in an isolated area of the interchange lot, or the explosives shall be placed in the holding facility.

5.2.3 The explosives transport vehicles, including trailers, in the interchange lot shall be maintained in the same condition as is required for highway transportation, including placarding.

5.2.4 Explosives shall not be retained on the lot, either in a trailer or holding facility, for a period longer than necessary, but in no case for more than 100 hours.

5.2.5 Smoking, matches, open flames, spark-producing devices, and firearms shall be prohibited inside and within 15.3 m (50 ft) of the temporary holding facility or trailer containing explosives unless otherwise permitted in 5.2.6.

5.2.6 Law enforcement and security personnel shall be permitted to carry firearms where specifically authorized by the authority having jurisdiction.

5.2.7 Temporary facilities as specified in 5.1.1 shall be appropriately marked so that the interchange lot employees are aware of the location.

5.2.8 At least two portable fire extinguishers, having a capacity of at least 4-A:40-B:C, shall be placed at each temporary holding facility and shall be readily available for immediate use.

5.2.9 Employee Training at Interchange Lots. The operator of the explosives motor vehicle interchange lot shall maintain an active training program in emergency procedures for all employees stationed at the interchange lot.

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

5.2.9.1 Written emergency instructions shall be posted and readily accessible to all employees.

5.2.9.2 Employees involved in the loading, shipping, or transportation of explosives shall receive hazardous material training as required by the U.S. Department of Transportation (49 CFR 172.700–172.704) and shall be familiar with the U.S. Department of Transportation *Emergency Response Guide (ERG)* (RSPA-5800.6).

5.2.9.3 Any driver who transports a vehicle loaded with explosives over public highways shall possess a valid commercial driver's license (CDL) with a hazardous material endorsement (H).

Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.1 Safe havens and interchange lots provide parking and interchange facilities for vehicles transporting explosives. Some explosives interchange lots also provide temporary holding facilities for less-than-truckload quantities of explosives. This standard is designed to prevent the occurrence or spread of fire in facilities where an explosion can present a distinct threat to the surrounding areas.

Explosives motor vehicle facilities are part of the over-the-road transportation of explosives. These facilities not only provide the services noted above, but can also provide vehicle maintenance and driver rest areas.

Motor vehicles using these facilities operate under the regulations of the U.S. Department of Transportation (49 CFR). These vehicles are engaged in transporting explosives and ammunition on government bills of lading or are often carriers of commercial explosives.

Properly operated explosives motor vehicle facilities provide a safe and controlled environment for parking vehicles carrying explosives. The overall result is improved highway safety.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.2.4 Listed. The means for identifying listed equipment may vary for each organization concerned with product evaluation; some organizations do not recognize equipment as listed unless it is also labeled. The authority having jurisdiction should utilize the system employed by the listing organization to identify a listed product.

A.3.3.2 Explosives Motor Vehicle Facility. Such a facility can be a safe haven or interchange lot and can include maintenance shops, driver rest services, or any combination of these conveniences.

A.3.3.4 Safe Haven. See 49 CFR 397.5.

A.3.3.5 Shipping Papers. The information required for shipping papers is specified in 49 CFR 172.202–172.204.

A.4.1.4 Signs do not need to be displayed when there are no explosives-laden vehicles in the safe haven.

A.4.2.8 In case of an emergency where vehicles loaded with other hazardous materials are brought to a safe haven, such vehicles should be parked at a location on the lot well separated from the explosives-laden vehicles.

A.5.1.1 Temporary holding facilities should be separated as far as practicable to reduce the concentration of explosives in any single area of the terminal.

Annex B Informational References

B.1 Referenced Publications. The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

B.1.1 NFPA Publications. (Reserved)

B.1.2 Other Publications.

B.1.2.1 U.S. Government Publications. U.S. Government Printing Office, Washington, DC 20402.

Title 49, Code of Federal Regulations, Parts 172.202–172.204.

Title 49, Code of Federal Regulations, Part 397.5, "Attendance and Surveillance of Motor Vehicles."

B.2 Informational References. (Reserved)

B.3 References for Extracts in Informational Sections. (Reserved)

--`,,```,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Index

© 2005 National Fire Protection Association. All Rights Reserved.

The copyright in this index is separate and distinct from the copyright in the document that it indexes. The licensing provisions set forth for the document are not applicable to this index. This index may not be reproduced in whole or in part by any means without the express written permission of NFPA.

-A-

Application of standard 1.3, A.1.3.2
Approved (definition) 3.2.1, A.3.2.1
Authority having jurisdiction
Definition 3.2.2, A.3.2.2
Notification 4.6

-D-

Definitions ..... Chap. 3
Detonators, storage 5.1.1.2

-E-

Electric service lines 4.3.4
Employee training 4.4.1, 4.5, 5.2.9
Explosives
Awaiting shipment 5.2.1
Connecting carrier, delivered by 5.2.2
Time retained on interchange lots 5.2.4
Transfer between vehicles 4.2.7
Explosives interchange lots ..... Chap. 5
Definition 3.3.1
Operations 5.2
Storage facilities, temporary 5.1, 5.2.4, 5.2.5, 5.2.7, A.5.1.1
Explosives motor vehicle facilities (definition) ..... 3.3.2, A.3.3.2; *see also* Explosives interchange lots; Safe havens
Extinguishers, portable fire 4.1.6.2, 5.2.8

-F-

Fire protection equipment 4.1.6, 5.2.8

-H-

Hazardous materials, nonexplosive 4.2.8, A.4.2.8

-I-

Ignition sources, control of 4.3, 5.2.5, 5.2.6

-L-

Labeled (definition) 3.2.3
Listed (definition) 3.2.4, A.3.2.4

-M-

Motor vehicles
Definition 3.3.3
Inspection 4.2.1
Parking 4.2, 5.2.2, A.4.2.8
Repair 4.3.1
Stand-by vehicle at safe haven 4.1.5.2
Trailers 4.2.2, 4.2.3, 4.2.5, 5.1.3, 5.2.2 to5.2.4

-P-

Purpose of standard 1.2

-R-

References ..... Chap. 2, Annex B

-S-

Safe havens ..... Chap. 4
Definition 3.3.4, A.3.3.4
Fire protection 4.1.6
Ignition sources, control of 4.3
Location ..... 4.1.1 to 4.1.2
Notification of authority 4.6
Parking 4.2, A.4.2.8
Security 4.1.4, 4.1.5, 4.3.3, 4.4, A.4.1.4
Training, employee 4.4.1, 4.5
Scope of standard 1.1, A.1.1
Shall (definition) 3.2.5
Shipping papers (definition) 3.3.5, A.3.3.5
Should (definition) 3.2.6
Signs, warning 4.1.4, A.4.1.4
Standard (definition) 3.2.7
Storage facilities, temporary 5.1, 5.2.4, 5.2.5, 5.2.7, A.5.1.1

-T-

Trailers, motor vehicle ..... 4.2.2, 4.2.3, 4.2.5, 5.1.3, 5.2.2 to 5.2.4
Training, employee 4.4.1, 4.5, 5.2.9

-V-

Vehicles
Motor ..... *see* Motor vehicles
Self-propelled 4.2.6

-W-

Watch personnel 4.1.5

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

Sequence of Events Leading to Publication of an NFPA Committee Document

Call goes out for proposals to amend existing document or for recommendations on new document.

▼

Committee meets to act on proposals, to develop its own proposals, and to prepare its report.

▼

Committee votes on proposals by letter ballot. If two-thirds approve, report goes forward. Lacking two-thirds approval, report returns to committee.

▼

Report — *Report on Proposals* (ROP) — is published for public review and comment.

▼

Committee meets to act on each public comment received.

▼

Committee votes on comments by letter ballot. If two-thirds approve, supplementary report goes forward. Lacking two-thirds approval, supplementary report returns to committee.

▼

Supplementary report — *Report on Comments* (ROC) — is published for public review.

▼

NFPA membership meets (Annual or Fall Meeting) and acts on committee report (ROP or ROC).

▼

Committee votes on any amendments to report approved at NFPA Annual or Fall Meeting.

▼

Appeals to Standards Council on Association action must be filed within 20 days of the NFPA Annual or Fall Meeting.

▼

Standards Council decides, based on all evidence, whether or not to issue standard or to take other action, including upholding any appeals.

Committee Membership Classifications

The following classifications apply to Technical Committee members and represent their principal interest in the activity of the committee.

M *Manufacturer:* A representative of a maker or marketer of a product, assembly, or system, or portion thereof, that is affected by the standard.

U *User:* A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.

I/M *Installer/Maintainer:* A representative of an entity that is in the business of installing or maintaining a product, assembly, or system affected by the standard.

L *Labor:* A labor representative or employee concerned with safety in the workplace.

R/T *Applied Research/Testing Laboratory:* A representative of an independent testing laboratory or independent applied research organization that promulgates and/or enforces standards.

E *Enforcing Authority:* A representative of an agency or an organization that promulgates and/or enforces standards.

I *Insurance:* A representative of an insurance company, broker, agent, bureau, or inspection agency.

C *Consumer:* A person who is, or represents, the ultimate purchaser of a product, system, or service affected by the standard, but who is not included in the *User* classification.

SE *Special Expert:* A person not representing any of the previous classifications, but who has a special expertise in the scope of the standard or portion thereof.

NOTES:

1. "Standard" connotes code, standard, recommended practice, or guide.
2. A representative includes an employee.
3. While these classifications will be used by the Standards Council to achieve a balance for Technical Committees, the Standards Council may determine that new classifications of members or unique interests need representation in order to foster the best possible committee deliberations on any project. In this connection, the Standards Council may make such appointments as it seems appropriate in the public interest, such as the classification of "Utilities" in the National Electrical Code Committee.
4. Representatives of subsidiaries of any group are generally considered to have the same classification as the parent organization.

--`,,```,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS

Not for Resale

NFPA Technical Committee Document Proposal Form

Note: All proposals must be received by 5:00 p.m. EST/EDST on the published proposal closing date.

For further information on the standards-making process, please contact Codes and Standards Administration at 617-984-7249. For technical assistance, please call NFPA at 617-770-3000.

FOR OFFICE USE ONLY
Log #: _____
Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC: ☐ **CD ROM** ☐ **paper** ☐ **download**
(Note: In choosing the download option you intend to view the ROP/ROC from our Website. No copy will be sent to you.)

Date 12/18/02 **Name** John B. Smith **Telephone** 617-555-1212
Company _____
Address 9 Seattle St. **City** Seattle **State** WA **Zip** 02255
Please indicate organization represented (if any) Fire Marshals Assn. of North America

1. **a) NFPA Document Title** National Fire Alarm Code
   b) NFPA No. & Edition NFPA 72, 2002 ed. **c) Section/Paragraph** 4.4.7.1.1

2. **Proposal Recommends:** *(check one)* ☐ **new text** ☐ **revised text** ☒ **deleted text**

3. **Proposal.** *(Include proposed new or revised wording, or identification of wording to be deleted.)* Note: Proposed text should be in legislative format, that is, use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~). Delete exception.

4. **Statement of Problem and Substantiation for Proposal.** Note: State the problem that will be resolved by your recommendation. Give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication. A properly installed and maintained system should be free of ground faults. The occurrence of one or more ground faults should be required to cause a "trouble" signal because it indicates a condition that could contribute to future malfunction of the system. Ground fault protection has been widely available on these systems for years and its cost is negligible. Requiring it on all systems will promote better installations, maintenance and reliability.

5. ☒ **This Proposal is Original Material.** Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and, to the best of his/her knowledge, is not copied from another source.

   ☐ **This Proposal is Not Original Material; Its Source** ***(if known)*** **is as Follows:** _____

Sample

I hereby grant the NFPA all and full rights in copyright to this proposal, and I understand that I acquire no rights in any publication of NFPA in which this proposal in this or another similar or analogous form is used.

Signature ***(Required)*** John B. Smith

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL • NFPA FAX (617) 770-3500

Mail to: Secretary, Standards Council • NFPA • 1 Batterymarch Park • PO Box 9101 • Quincy, MA 02269-9101

--`,,```,,-`-`,,`,,`,`,,`---

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale

NFPA Technical Committee Document Proposal Form

Note: All proposals must be received by 5:00 p.m. EST/EDST on the published proposal closing date.

For further information on the standards-making process, please contact Codes and Standards Administration at 617-984-7249. For technical assistance, please call NFPA at 617-770-3000.

FOR OFFICE USE ONLY
Log #: _____
Date Rec'd: _____

Please indicate in which format you wish to receive your ROP/ROC: ☐ **CD ROM** ☐ **paper** ☐ **download**
(Note: In choosing the download option you intend to view the ROP/ROC from our Website. No copy will be sent to you.)

Date _____ **Name** _____ **Telephone** _____
Company _____
Address _____ **City** _____ **State** _____ **Zip** _____
Please indicate organization represented (if any) _____

1. **a) NFPA Document Title** _____
   b) NFPA No. & Edition _____ **c) Section/Paragraph** _____

2. **Proposal Recommends:** *(check one)* ☐ **new text** ☐ **revised text** ☐ **deleted text**

3. **Proposal.** *(Include proposed new or revised wording, or identification of wording to be deleted.)* Note: Proposed text should be in legislative format, that is, use underscore to denote wording to be inserted (inserted wording) and strike-through to denote wording to be deleted (~~deleted wording~~). _____

4. **Statement of Problem and Substantiation for Proposal.** Note: State the problem that will be resolved by your recommendation. Give the specific reason for your proposal including copies of tests, research papers, fire experience, etc. If more than 200 words, it may be abstracted for publication. _____

5. ☐ **This Proposal is Original Material.** Note: Original material is considered to be the submitter's own idea based on or as a result of his/her own experience, thought, or research and, to the best of his/her knowledge, is not copied from another source.

   ☐ **This Proposal is Not Original Material; Its Source *(if known)* is as Follows:** _____

I hereby grant the NFPA all and full rights in copyright to this proposal, and I understand that I acquire no rights in any publication of NFPA in which this proposal in this or another similar or analogous form is used.

Signature *(Required)* _____

PLEASE USE SEPARATE FORM FOR EACH PROPOSAL • NFPA FAX (617) 770-3500

Mail to: Secretary, Standards Council • NFPA • 1 Batterymarch Park • PO Box 9101 • Quincy, MA 02269-9101

Copyright National Fire Protection Association
Provided by IHS under license with NFPA
No reproduction or networking permitted without license from IHS
Not for Resale